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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/824,354	04/02/2001	Howard Anthony Barnes	C7547(C)	7177
24804	7590	03/11/2005	EXAMINER	
S.C. JOHNSON COMMERCIAL MARKETS INC			KIM, CHRISTOPHER S	
8310 16TH STREET, M/S 510				
PO BOX 902			ART UNIT	PAPER NUMBER
STURTEVANT, WI 53177-0902			3752	

DATE MAILED: 03/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/824,354

Applicant(s)

BARNES ET AL.

Examiner

Christopher S. Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2004.
- 2a) ☒ This action is **FINAL**.      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 13-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 18-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

1. The response filed December 27, 2004 is acknowledged.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 20 and 21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 20 recites "wherein the volume median diameter of the water droplets at 1 meter from the nozzle opening is in the range of greater than 1mm to 2mm." The specification fails to teach a volume median diameter in the range of greater than 1mm to 2mm. The specification, on page 5, teaches that the volume median diameter at 1m from the nozzle opening is preferably in the range 0.5 to 1.5mm, and is more preferably greater than 1mm, e.g. at least 1.02mm. Similarly, claim 21 recites "wherein the volume

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median diameter of the water droplets at 1 meter from the nozzle opening is in the range of greater than 1mm to 1.5mm.”

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1, 2, 5-12 and 18-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites “whereby said droplets have a momentum suitable for removing soil from a hard surface.” The specification gives no guidance in the interpretation of “suitable.” The metes and bounds of the claim cannot be determined.

### ***Claim Rejections - 35 USC § 102***

7. Claims 3 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Woellner (3,800,435).

Woellner discloses a method of generating a water spray comprising: ejecting water under pressure from nozzle opening 34; providing a gas flow (air) alongside the ejected water stream, the ratio of the gas flow to the velocity of the water stream immediately downstream of the nozzle opening being in the range of 0.5 to 2 (approximately 1, column 7, line 65-67; approximately 0.8, column 8, lines 35-37).

8. Claims 1, 5-7, 9-11, 12, 18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Kanno et al. (5,934,566).

Kanno discloses a method comprising: ejecting water and liquid (see figures 2, 12-14) where the water droplet diameter is in the range of 0.5 to 2 mm (0.01 micrometer to 1000 micrometer, column 6, lines 9-24). The term "suitable" has been considered to merely require the ability to so perform. By definition, all droplets having motion also have momentum and also have the ability to remove soil from a hard surface.

***Claim Rejections - 35 USC § 103***

9. Claims 2, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanno et al. (5,934,566).

With respect to claim 2, Kanno discloses the limitations of the claimed invention with the exception to the gas and water stream velocity ratio. Kanno discloses pressure and supply amount of the gas and water stream and their affect on droplet size (see column 5, line 56 through column 6, line 24). Providing a velocity ratio range of 0.5 to 2 would have been an optimization of the Kanno's functional parameters which is within the knowledge of one of ordinary skill in the art. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided a velocity ratio range of 0.5 to 2 to optimize cleaning. *In re Aller*, 105 USPQ 233.

With respect to claim 8, Kanno discloses the limitations of the claimed invention with the exception to the water flow rate being 14 to 28 l/min. Kanno discloses liquid supply pressures (column 5, lines 23-39). Providing water flow rate between 14 to 28 l/min would have been an optimization of the Kanno's functional parameters which is within the knowledge of one of ordinary skill in the art. It would have been obvious to a

person having ordinary skill in the art at the time of the invention to have provided water flow rate between 14 to 28 l/min to optimize cleaning. *In re Aller*, 105 USPQ 233.

### ***Response to Arguments***

10. Applicant's arguments filed December 27, 2004 have been fully considered but they are not persuasive.

In response to applicant's argument that claims 3 and 4 are directed to a method of removing soil, applicant's argument is not commensurate in scope with the claimed invention. Claims 3 and 4 are directed to a method of generating a water spray.

In response to applicant's argument that Kanno teaches away from use of droplets larger than 0.1mm, see Kanno, column 6, lines 9-24.

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

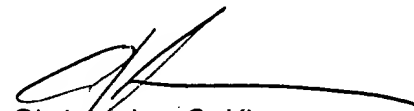
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. Kim whose telephone number is (571) 272-4905. The examiner can normally be reached on Monday - Thursday, 6:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherbel can be reached on (571) 272-4919. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Christopher S. Kim  
Primary Examiner  
Art Unit 3752

CK